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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/574,657

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Isamu Kamata

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03/18/2010

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EXAMINER

HAMO, PATRICK

ART UNIT

PAPER NUMBER

3746

NOTIFICATION DATE

DELIVERY MODE

03/18/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentmail@whda.com

Office Action Summary	Application No. 10/574,657	Applicant(s) KAMATA ET AL.	
	Examiner PATRICK HAMO	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 8-10 is/are pending in the application.
- 4a) Of the above claim(s) 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to the amendments filed on December 21, 2009.

Drawings

The drawings were received on December 21, 2009. These drawings are accepted.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 4, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 2808383 to Kubota Corp. (Kubota).

Kubota discloses a water-lifting apparatus comprising a suction tank 1, a discharge tank 2, a pump 3 for pumping from tank 1 to tank 2 through discharge piping 6, actuating means 7, 8 for driving the pump 3, a pressure responsive reverse flow mechanism for preventing back flow from the discharge tank that includes (claim 3, 9) a reverse flow prevention valve 13 distally located in the piping from the tank and (claim 4) siphonic tubing arranged at a discharge end proximal to the tank, And back flow rate control means for controlling the flow

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rate of the backflow from the discharge piping when the operation of the pump is stopped that includes (claim 8) a mechanism to reduce the blade angle of the pump (see Abstract). In regard to the claimed limitations that water flows in said pump within the limits of allowing vibrations of said pump based on a detected value to thereby lower the water level gradually in said discharge piping, these limitations constitute intended results that do not structurally limit the claim and that the prior art of Kubota is capable of accomplishing.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deters, US 3,172,567.

Deters discloses an gasoline-lifting pump apparatus (capable of lifting water) comprising: a suction tank 30; and a discharge tank in the form of a user's automobile or gasoline carrier;

a pump 38 for pumping gasoline in said suction tank into said discharge tank, and a discharge piping 40 connected to a discharge side of the pump;

actuating means (electric motor, see col. 2, lines 33-39) for driving said pump and controlling a rotational speed of said pump;

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a reverse flow preventing mechanism (portion including diaphragm valve 90 and plunger 92 in header 26, see fig. 3) provided at a distal end of the discharge piping (claim 3) for preventing a reverse flow of water pumped into said discharge tank toward said discharge piping (see col. 3, lines 26-30); and

back flow rate control means (diaphragm 90) for controlling a rotational speed of said based on a detected value of a pressure (diaphragm 90 is pressure actuated and biased to close at a pressure of about 15 p.s.i.).

Because the pump is disclosed as a centrifugal pump, it would have been obvious to one having ordinary skill in the art that a backflow of fluid would have the effect of forcing a reverse rotation in the blades of the pump, such that a back flow rate control means would control a rotational speed of the pump. In regard to the claimed limitations that water flows in said pump within the limits of allowing vibrations of said pump based on a detected value to thereby lower the water level gradually in said discharge piping, these limitations constitute intended results that do not structurally limit the claim and that the prior art of Deters is capable of accomplishing.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota above in view of JP 2797822 to Hitachi Ltd. (Hitachi).

Kubota discloses all of the limitations substantially as claimed except for the reverse flow preventing mechanism including a dam disposed in the discharge tank. However, dams are well known in the art as a means of preventing backflow, and Hitachi teaches one such water-lifting apparatus that

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uses a dam 10 to prevent backflow toward a discharge piping 5. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have modified the water-lifting apparatus of Kubota with the dam of Hitachi as a further means of ensuring that the water lifted by the pump did not recede back when the pump was shut off.

Response to Arguments

Applicant's arguments with respect to the non-entered amendment have been fully considered and are persuasive. Therefore, the prior action on claims since amended has been vacated and the claims presented in the preliminary amendment have been examined on the merits in the present case.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5,577,895 drawn to a submerged pumping system with high head and reverse flow prevention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICK HAMO whose telephone number is (571)272-3492. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax

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phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devon C Kramer/
Supervisory Patent Examiner, Art
Unit 3746

/Patrick Hamo/
Patent Examiner, AU 3746